

FEDERAL REPUBLIC OF GERMANY
GERMAN PATENT OFFICE
PATENT NO. 1 560 755
(Offenlegungsschrift)

Int. Cl.: D 06 n
German Cl.: 8h, 4
Filing No: P 15 60 755.3 (D 51015)
Filing Date: September 3, 1966
Date Laid-Open to Public
Inspection: October 15, 1970

FLOOR COVERING

Applicant: Deutsche Linoleum-Werke AG,
7120 Bietigheim
Inventor: Dr. Rolf Maysenhölder
7122 Besigheim
[Agent: Dr. Eugen Maier, patent attorney]

Notification according to Article 7, Section 1, Paragraph 2, No. 1 of the Law of September 4, 1967 (Federal Law Bulletin 1, p. 960): August, 8, 1969

The invention concerns a floor covering with a textile face layer, which is particularly suitable for a loose fitting because of its special structure. The loose fitting of a floor covering, in particular, the shape of individual floor tiles, requires an absolute dimensional stability even under the most varied climatic conditions. This is not guaranteed, for example, with floor coverings with hygroscopic fibers, so that, for example, the use of coconut fibers to produce floor coverings to be fitted loosely was only conditionally possible. Fibers of this type, however, are suitable for the production of cushion layers, as they are particularly intended as a lower layer with floor coverings because of their special bending elasticity.

In order not to have to dispense with the use of such relatively voluminous cushion lower layers in floor coverings of the aforementioned type, whose upper layer preferably consists of a needle-bonded fabric covering connected with a support fabric, the proposal according to the

invention is to use a layer consisting of coarse-titer synthetic or natural fibers, which are embedded in a foam mass, as a cushion layer. The mass preferably used as a foam mass is one which forms an adhesive connection between the textile upper layer and the fibers of the cushion lower layer.

Such an adhesive connection is appropriately produced in such a manner that the foam-forming, liquid starting mixture is sprayed onto the underside of the upper layer, which, as a rule, is formed by a support fabric, whereupon the cushion lower layer is pressed onto the sprayed-on layer and a firm joining of the layers is effected by foaming. If, however, because of processing-technological reasons, the cushion lower layer advantageously reinforced with latex is first cemented with the underside of the upper layer, then the foam-forming liquid starting mixture is sprayed under pressure into the cavities of the cushion layer and the mass is then foamed on.

The drawing shows, in schematic fashion, an exemplified embodiment of the floor covering, in accordance with the invention.

The needle-bonded fabric covering 1, homogeneously made of the same fibrous material or also from various fibrous materials, is joined with a support fabric 2 consisting of synthetic or natural fibers by nailing. The cushion layer 3 is glued onto this support fabric, which, as explained above, can be foamed on either separately or after this joining with the upper layer. The individual fibers 31 are embedded in the foam 32, preferably, polyurethane foam.

By coating with foam, the individual fibers become insensitive with respect to moisture influences; otherwise, the foam 32 is stiffened by the enclosed fibers 31.

Claims

1. Floor covering, in particular, for a loose fitting, whose upper layer consists of a needle-bonded fabric covering, structured as one layer or several layers and connected with a support fabric, characterized in that the lower layer consists of a cushion layer with coarse-titer, synthetic or natural fibers, embedded in a foam mass.
2. Floor covering tiles according to Claim 1, characterized in that the fibers of the cushion layer are embedded in a polyurethane foam.
3. Floor covering tiles according to Claims 1 and 2, characterized in that the foam mass forms an adhesive connection between the upper layer and the fibers of the lower layer.
4. Method for the production of a floor covering tile according to Claims 1-3, characterized in that the foam-forming liquid starting mixture is sprayed under pressure into the cavities of the cushion layer and by means of foaming, said cavities are enclosed and the fibers are coated.

5. Method for the production of a floor covering tile according to Claim 3, characterized in that the foam-forming liquid starting mixture is sprayed onto the reverse side of the upper layer, the cushion layer is pressed onto the sprayed-on layer, and a firm joining of the layers is effected.

